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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,580	05/10/2001	Jiunn-Ren Hwang	NAUP0292USA	3189
27765	7590	07/10/2008		
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116				
			EXAMINER RUGGLES, JOHN S	
			ART UNIT 1795	PAPER NUMBER
			NOTIFICATION DATE 07/10/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

09/851,580

**Applicant(s)**

HWANG ET AL.

**Examiner**

John Ruggles

**Art Unit**

1795

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/8/07, 11/18, 5/6/04, 12/17, 8/20, 8/18/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 1 and 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/17/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination (RCE) under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed on 8/20/03 in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on 5/6/04 (having a corrected listing of claims 1-6) has been entered, but the 8/20/03 RCE specification amendment (abstract only) is non-compliant and has therefore not been entered.

### ***Response to Amendment***

In the 5/6/04 amendment claims listing, claim 1 is currently amended, claim 2 remains as original, and claims 3-6 have been canceled. Therefore, only claims 1-2 as currently amended are under consideration.

The 8/20/03 proposed abstract is non-compliant and cannot be entered. Remaining objections to the specification are also exemplified below.

A new drawing objection in reference to Figure 12 is set forth below.

Claims 1-2 are rejected under the second paragraph of 35 U.S.C. 112 and these claims are also objected to, as necessitated by the currently entered 5/6/04 amendment.

Nevertheless, claims 1-2 would be allowable if they are rewritten or amended to overcome all of the objections and rejections set forth in this Office action.

### *Specification*

(1) The 8/20/03 proposed abstract is non-compliant and cannot be entered, because: **(a)** it does not have the proper heading “ABSTRACT”, **(b)** it refers to the wrong page number (“page 1” should be changed to --~~page 1~~ page 14--) of the specification for replacement of the abstract paragraph, and **(c)** it does not properly show all changes with respect to the original 5/10/01 abstract (by underlining added text and striking through deleted text) since each of the previous attempts at amending the abstract were non-compliant and could not be entered.

The disclosure is also objected to, because of at least the following exemplary informalities: **(2)** at p4/L15-16, “a photoresist layer covering a surface of the semiconductor wafer 40” must be changed to --a photoresist layer 47 covering a surface of the semiconductor wafer 40--, in order to provide in the specification for the top layer 47 shown in prior art Figure 5 (to which this passage refers); **(3)** at p6/L3, “by performed two exposure processes” should be changed to --by ~~performed~~ performing two exposure processes--; and **(4)** at p9/L15, “Themask 71 comprises a transparent 72 formed of glass or quartz” must be changed to --~~The~~mask ~~The~~ mask 71 comprises a transparent substrate 72 formed of glass or quartz--.

Appropriate correction is required.

### *Drawings*

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5), because they include the following reference character(s) not mentioned in the description: **(i)** reference numbers “78” and “79” are shown in Figure 12, but these reference numbers are not found at all in the corresponding description of this drawing at p8/L25 to p10/L15 of the original 5/10/01 specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Objections***

Claims 1-2 are objected to because of the following informalities: (1) in claim 1 (p3/L16 of the 5/6/04 amendment listing of claims), "regions doing not overlap" must be corrected as -- regions ~~doing not~~ do not overlap--. Claim 2 depends from claim 1. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, which Applicants regard as the invention.

In claim 1 (in the 5/6/04 amendment submission at p3/L12-15), the currently amended language "performing a second exposure process to form second exposure regions that are

*rectangles interlaced with and perpendicular to each other* on the photoresist layer” (emphasis added by italics) is unclear about how the orientations of these rectangular second exposure regions relate to the previous recitation “first exposure regions that are lines parallel with each other on the photoresist layer” (as stated in claim 1 at p3/L8-11). In the original specification (at p9/L25), the text “*rectangles interlaced with and perpendicular to each other*” actually relates to portions of the chromium film pattern 77 on the second mask 75, which is illustrated by instant Figure 12. This text does not describe the second exposure regions on the photoresist layer resulting from the second exposure through the transparent areas 80 on the second mask 75. Therefore, for the purpose of this Office action, the above recitation (in the 5/6/04 amendment of claim 1 at p3/L8-11) is interpreted to be --first exposure regions that are lines parallel with each other and separated by unexposed parallel lines on the photoresist layer--; and the above language (in the 5/6/04 amendment of claim 1 at p3/L12-15) is interpreted to be --performing a second exposure process to form second exposure regions on the photoresist layer that cut the unexposed parallel lines ~~are rectangles interlaced with and perpendicular to each other on the photoresist layer~~” (emphasis added by italics). Claim 2 depends from claim 1.

#### ***Allowable Subject Matter***

Applicants’ 5/6/04 current amendment of the claims and the arguments accompanying the 8/20/03 RCE are persuasive regarding the previous art rejections of claims 1-2, which are now withdrawn.

Claim 1 would be allowable if it is rewritten or amended **(A)** to overcome the above rejection(s) under 35 U.S.C. 112, 2nd paragraph, and **(B)** to overcome the above objection to this claim, as set forth in this Office action.

Claim 2 would then also be allowable if it is rewritten or amended **(C)** to overcome the above rejection(s) under 35 U.S.C. 112, 2nd paragraph, **(D)** to overcome the above objection to this claim, as set forth in this Office action, and **(E)** to include all of the limitations of the base claim and any intervening claims.

As allowable subject matter has been indicated, Applicants' reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Ruggles whose telephone number is (571)272-1390. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1795

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MARK F. HUFF/

Supervisory Patent Examiner, Art Unit 1795

jsr